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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.             | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------------------|------------------|
| 10/522,491   | 10/06/2005  | Mauri Salmisuo       | ST9032PCT(US)                   | 4469             |
| 22203  | 7590        | 06/04/2009           |                                 |                  |
| KUSNER & JAFFE<br>HIGHLAND PLACE SUITE 310<br>6151 WILSON MILLS ROAD<br>HIGHLAND HEIGHTS, OH 44143 |             |                      | EXAMINER<br>MANOHARAN, VIRGINIA |                  |
|  |             |                      | ART UNIT                        | PAPER NUMBER     |
|  |             |                      | 1797                            |                  |
|  |             |                      | MAIL DATE                       | DELIVERY MODE    |
|  |             |                      | 06/04/2009 PAPER                |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/522,491

**Applicant(s)**

SALMISUO ET AL.

**Examiner**

Virginia Manoharan

**Art Unit**

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-4 and 7-9 is/are allowed.
- 6) ☒ Claim(s) 5-6 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8500)
- Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

Claims 5-6 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There are insufficient antecedent bases for the following limitations in the claims:

- 1). "the maximum product steam output", claim 5, line 2; and claim 10, lines 2-3;
- 2). "the evaporation product" claim 6, line 5; and
- 3). "the recirculating circuit", claim 10, line 2.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants Disclosure Of Admitted Prior Art as illustrated by US patent 3,875,017 and the International patent application WO 02/24299 in view of Lustenader et al (3,099,607), Silvey (4,698,138) and Zebuhr (6,908,533).

The above references are applied for the same combined reasons as set forth at pages 4 and 5 of the previous Office action. Zebuhr is applied to teach that the claimed ".. outer shell defining an inner cavity, an inner shell disposed in the inner cavity of the outer shell, the inner shell sealingly attaches to the outer shell along a lower edge and along an upper edge of the inner shell to define a space between the inner shell and the

outer shell, the space fluidly communicating with a remaining portion of the inner cavity of the outer shell through, an opening, formed in an upper portion of the inner shell..” in claim 6 is a known expediency in the art. See e.g., col 11, lines 58-66 through col. 12, lines 1-67. To incorporate Zebuhr to the other references would have been obvious to one of ordinary skill in the art inasmuch as all the references are directed to the same processing environment. i.e., to a distillation unit of operation.

Claims 2-5 and 7-10 are allowable over the prior art of record.

Applicants’ arguments filed February 24, 2009 have been fully considered but they are not persuasive.

Applicants argument that Saari et al., Salmisuo et al, Lustenader or Silvey “..does not teach, suggest or show an outer shell and an inner shell wherein the inner shell sealingly attaches to the outer shell along an upper edge and along a lower edge of the inner shell to define a space therebetween, as defined in claim 6...” is not considered well-taken. However, Zebuhr ‘533, not Saari et al., Salmisuo et al, Lustenader or Silvey, as argued was cited to teach, suggest or show the concept of evaporators having their inner edges sealed by corresponding folds, and condensers having their outer edges sealed by corresponding folds; and further teach, suggest or show adjacent panels of folded plates defining spaces between their oppositely facing surfaces with the spaces alternatingly configured as evaporators and condensers. Given that concept (In re Bascom, 230 F.2d 612, 109 USPQ 98 (CCPA 1956)) one having ordinary skill in the art would have been led to modify the apparatus and method of the above references such that the upper and lower edges the outer and inner surfaces defining spaces are sealed

to arrive at the claimed invention, motivated with the reasonable expectation of providing a generally circular or annular form having a central space for effective distillation.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a). Ryham discloses an apparatus and method for evaporating a liquid including a plurality of heat elements having an outer and inner surfaces.
- b). Zebuhr 387' is basically similar with Zebuhr '533 above.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Virginia Manoharan whose telephone number is 571-272-1450.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Virginia Manoharan/  
Primary Examiner, Art Unit 1797

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